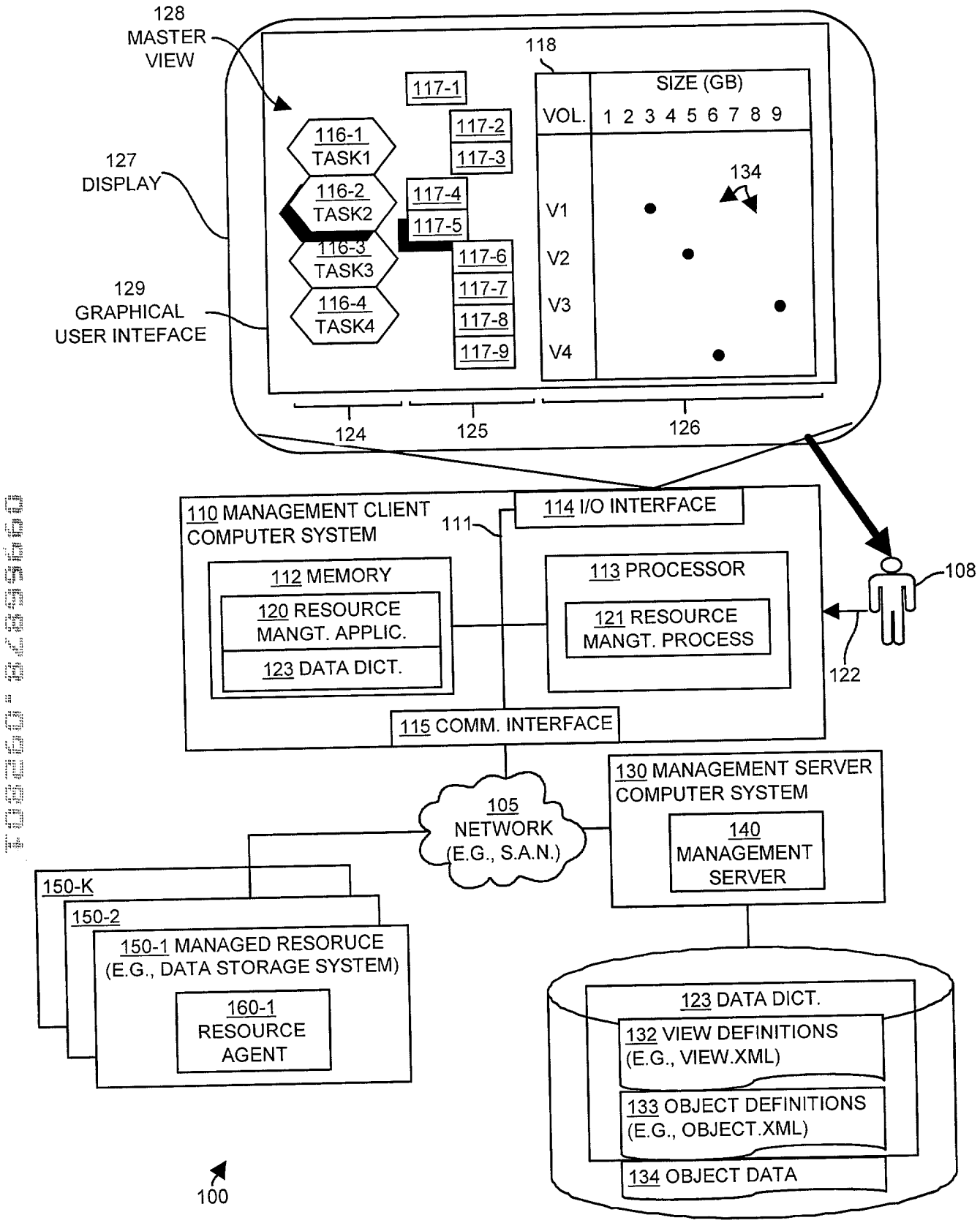
128
MASTER
VIEW
127
DISPLAY
129
GRAPHICAL
USER INTEFACE
118
117-1
117-2
117-3
117-4
117-5
117-6
117-7
117-8
117-9
116-1
TASK1
116-2
TASK2
116-3
TASK3
116-4
TASK4
SIZE (GB)
VOL.
1 2 3 4 5 6 7 8 9
V1
V2
V3
V4
134
124
125
126
110 MANAGEMENT CLIENT
COMPUTER SYSTEM
111
114 I/O INTERFACE
112 MEMORY
120 RESOURCE
MANGT. APPLIC.
123 DATA DICT.
113 PROCESSOR
121 RESOURCE
MANGT. PROCESS
115 COMM. INTERFACE
108
122
105
NETWORK
(E.G., S.A.N.)
130 MANAGEMENT SERVER
COMPUTER SYSTEM
140
MANAGEMENT
SERVER
150-K
150-2
150-1 MANAGED RESORUCE
(E.G., DATA STORAGE SYSTEM)
160-1
RESOURCE
AGENT
123 DATA DICT.
132 VIEW DEFINITIONS
(E.G., VIEW.XML)
133 OBJECT DEFINITIONS
(E.G., OBJECT.XML)
134 OBJECT DATA
100

FIG. 1

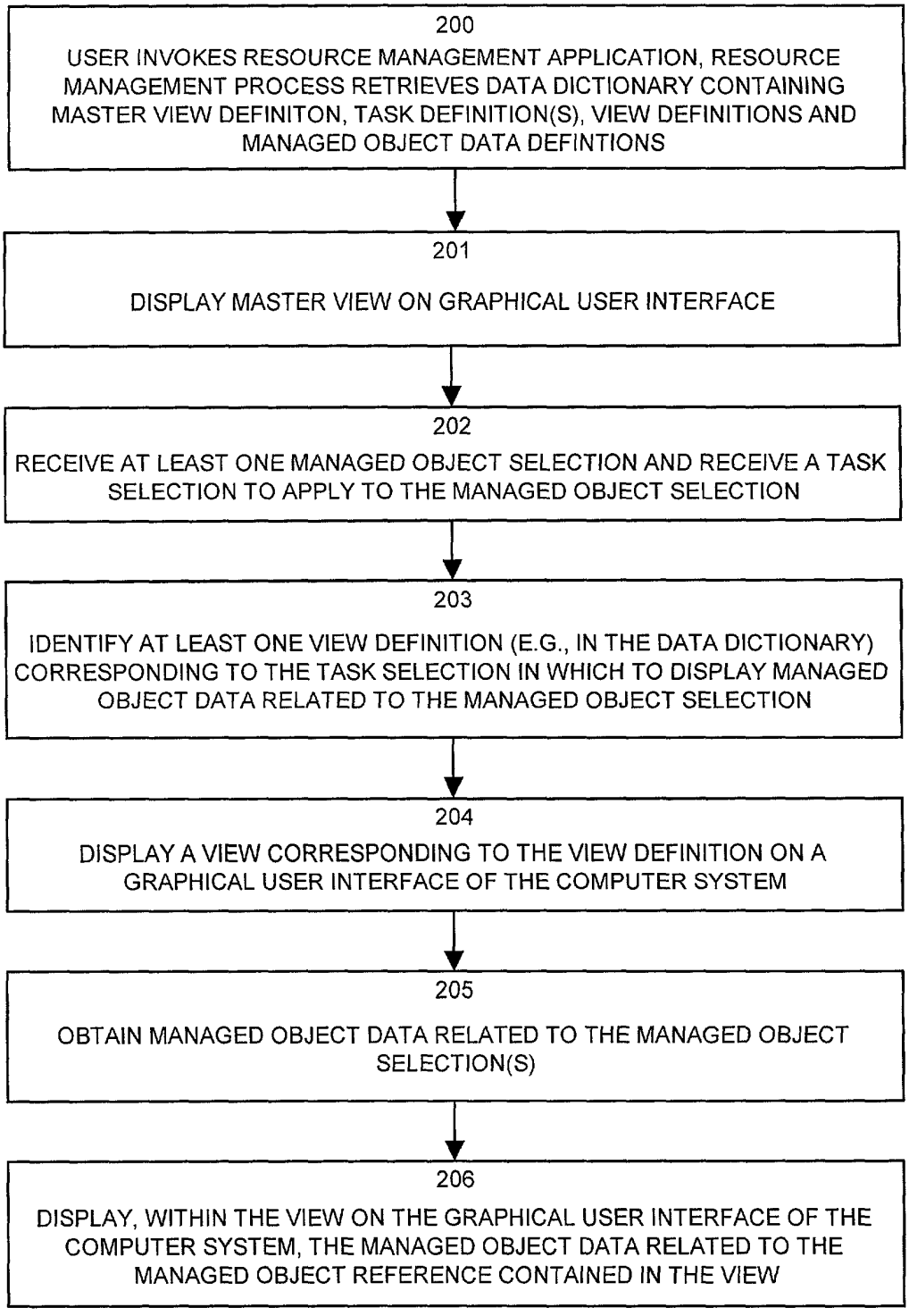
200
USER INVOKES RESOURCE MANAGEMENT APPLICATION, RESOURCE MANAGEMENT PROCESS RETRIEVES DATA DICTIONARY CONTAINING MASTER VIEW DEFINITON, TASK DEFINITION(S), VIEW DEFINITIONS AND MANAGED OBJECT DATA DEFINTIONS
201
DISPLAY MASTER VIEW ON GRAPHICAL USER INTERFACE
202
RECEIVE AT LEAST ONE MANAGED OBJECT SELECTION AND RECEIVE A TASK SELECTION TO APPLY TO THE MANAGED OBJECT SELECTION
203
IDENTIFY AT LEAST ONE VIEW DEFINITION (E.G., IN THE DATA DICTIONARY) CORRESPONDING TO THE TASK SELECTION IN WHICH TO DISPLAY MANAGED OBJECT DATA RELATED TO THE MANAGED OBJECT SELECTION
204
DISPLAY A VIEW CORRESPONDING TO THE VIEW DEFINITION ON A GRAPHICAL USER INTERFACE OF THE COMPUTER SYSTEM
205
OBTAIN MANAGED OBJECT DATA RELATED TO THE MANAGED OBJECT SELECTION(S)
206
DISPLAY, WITHIN THE VIEW ON THE GRAPHICAL USER INTERFACE OF THE COMPUTER SYSTEM, THE MANAGED OBJECT DATA RELATED TO THE MANAGED OBJECT REFERENCE CONTAINED IN THE VIEW

FIG. 2

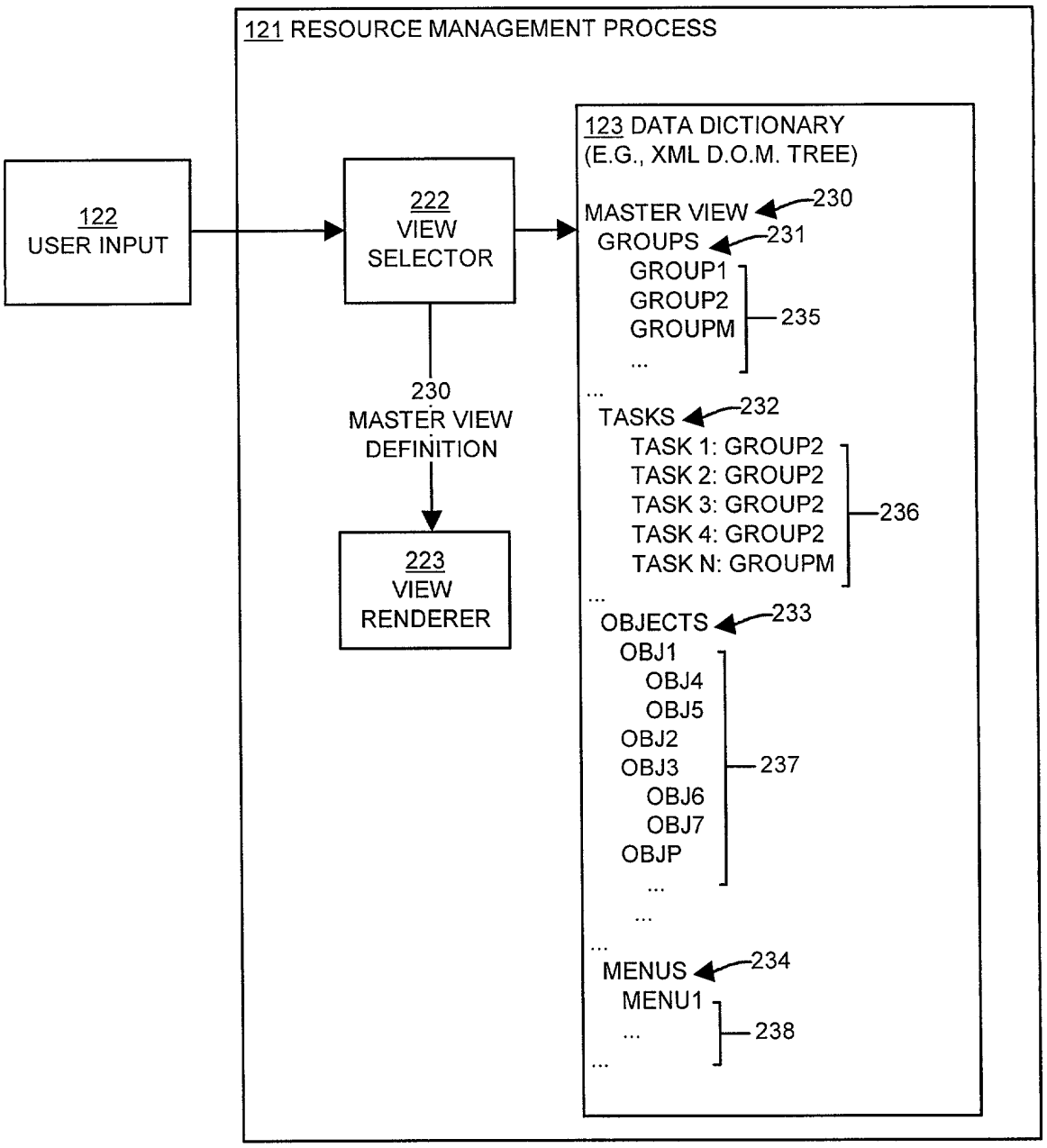
121 RESOURCE MANAGEMENT PROCESS
122
USER INPUT
222
VIEW
SELECTOR
123 DATA DICTIONARY
(E.G., XML D.O.M. TREE)
MASTER VIEW
230
GROUPS
231
GROUP1
GROUP2
GROUPM
235
...
TASKS
232
TASK 1: GROUP2
TASK 2: GROUP2
TASK 3: GROUP2
TASK 4: GROUP2
TASK N: GROUPM
236
OBJECTS
233
OBJ1
OBJ4
OBJ5
OBJ2
OBJ3
OBJ6
OBJ7
OBJP
237
MENUS
234
MENU1
238
230
MASTER VIEW
DEFINITION
223
VIEW
RENDERER

FIG. 3

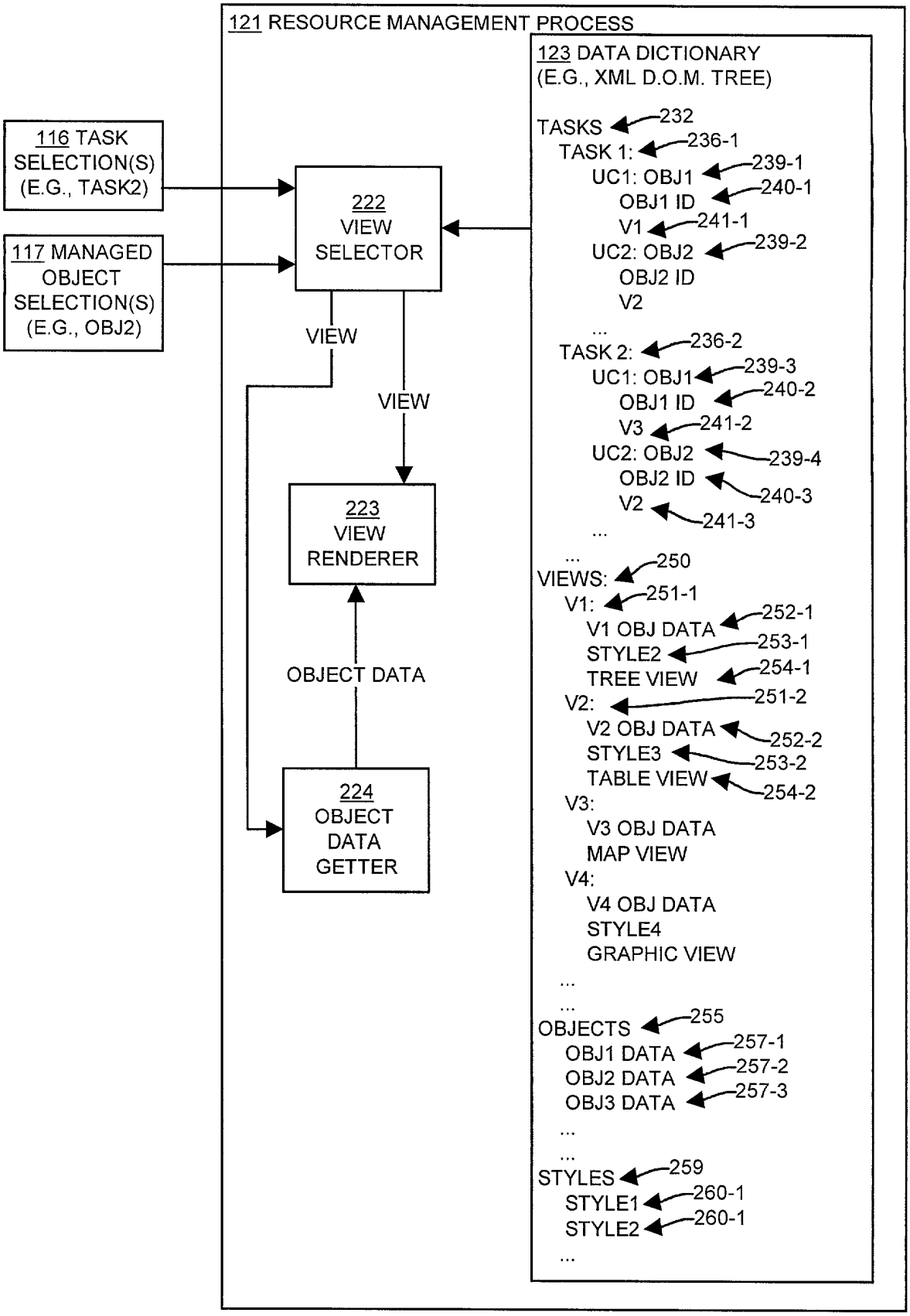
121 RESOURCE MANAGEMENT PROCESS
123 DATA DICTIONARY
(E.G., XML D.O.M. TREE)
116 TASK SELECTION(S) (E.G., TASK2)
117 MANAGED OBJECT SELECTION(S) (E.G., OBJ2)
222 VIEW SELECTOR
VIEW
VIEW
223 VIEW RENDERER
OBJECT DATA
224 OBJECT DATA GETTER
TASKS 232
TASK 1: 236-1
UC1: OBJ1 239-1
OBJ1 ID 240-1
V1 241-1
UC2: OBJ2 239-2
OBJ2 ID
V2
...
TASK 2: 236-2
UC1: OBJ1 239-3
OBJ1 ID 240-2
V3 241-2
UC2: OBJ2 239-4
OBJ2 ID 240-3
V2 241-3
...
VIEWS: 250
V1: 251-1
V1 OBJ DATA 252-1
STYLE2 253-1
TREE VIEW 254-1
V2: 251-2
V2 OBJ DATA 252-2
STYLE3 253-2
TABLE VIEW 254-2
V3:
V3 OBJ DATA
MAP VIEW
V4:
V4 OBJ DATA
STYLE4
GRAPHIC VIEW
OBJECTS 255
OBJ1 DATA 257-1
OBJ2 DATA 257-2
OBJ3 DATA 257-3
STYLES 259
STYLE1 260-1
STYLE2 260-1

FIG. 4

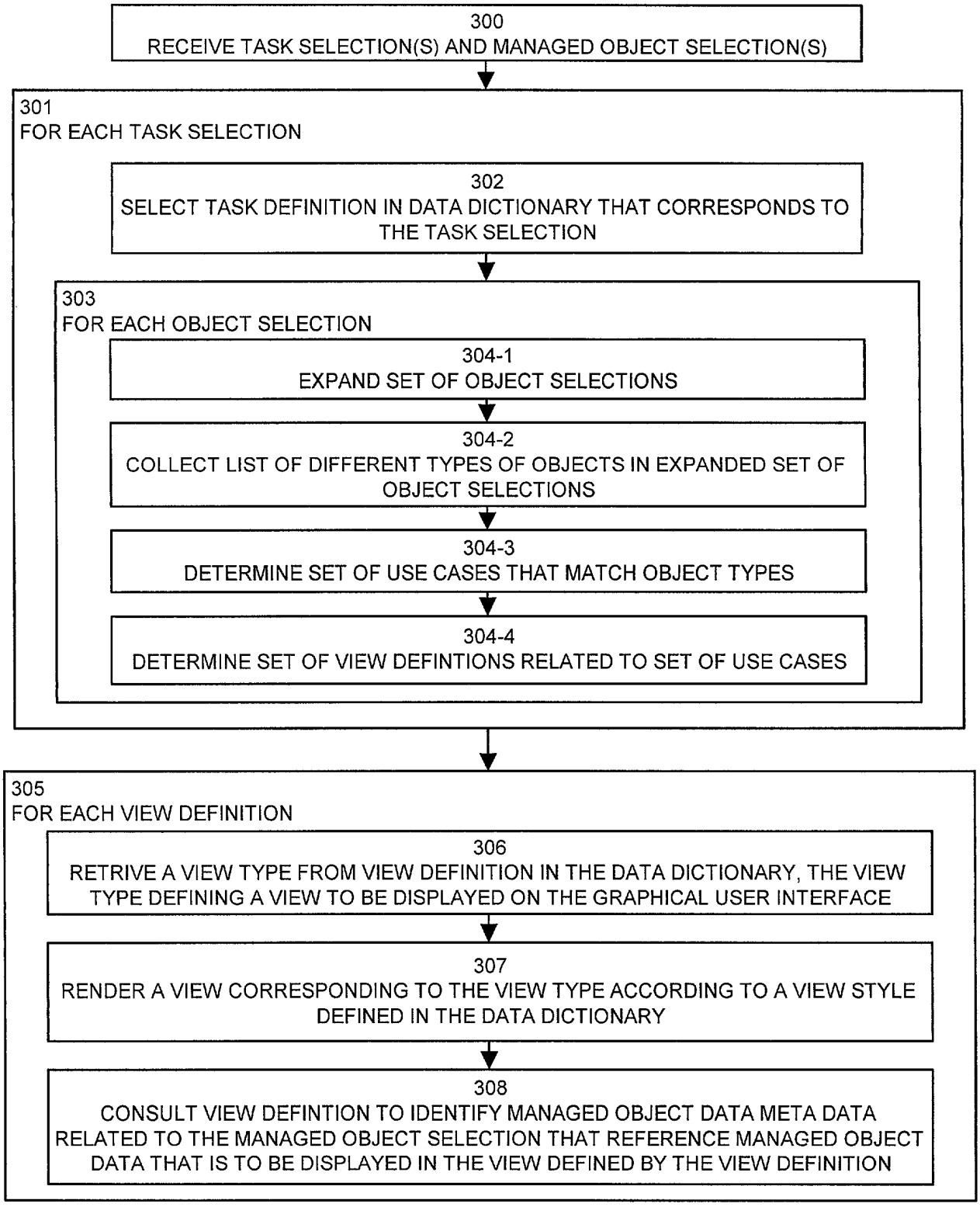
300
RECEIVE TASK SELECTION(S) AND MANAGED OBJECT SELECTION(S)
301
FOR EACH TASK SELECTION
302
SELECT TASK DEFINITION IN DATA DICTIONARY THAT CORRESPONDS TO THE TASK SELECTION
303
FOR EACH OBJECT SELECTION
304-1
EXPAND SET OF OBJECT SELECTIONS
304-2
COLLECT LIST OF DIFFERENT TYPES OF OBJECTS IN EXPANDED SET OF OBJECT SELECTIONS
304-3
DETERMINE SET OF USE CASES THAT MATCH OBJECT TYPES
304-4
DETERMINE SET OF VIEW DEFINTIONS RELATED TO SET OF USE CASES
305
FOR EACH VIEW DEFINITION
306
RETRIVE A VIEW TYPE FROM VIEW DEFINITION IN THE DATA DICTIONARY, THE VIEW TYPE DEFINING A VIEW TO BE DISPLAYED ON THE GRAPHICAL USER INTERFACE
307
RENDER A VIEW CORRESPONDING TO THE VIEW TYPE ACCORDING TO A VIEW STYLE DEFINED IN THE DATA DICTIONARY
308
CONSULT VIEW DEFINTION TO IDENTIFY MANAGED OBJECT DATA META DATA RELATED TO THE MANAGED OBJECT SELECTION THAT REFERENCE MANAGED OBJECT DATA THAT IS TO BE DISPLAYED IN THE VIEW DEFINED BY THE VIEW DEFINITION

FIG. 5

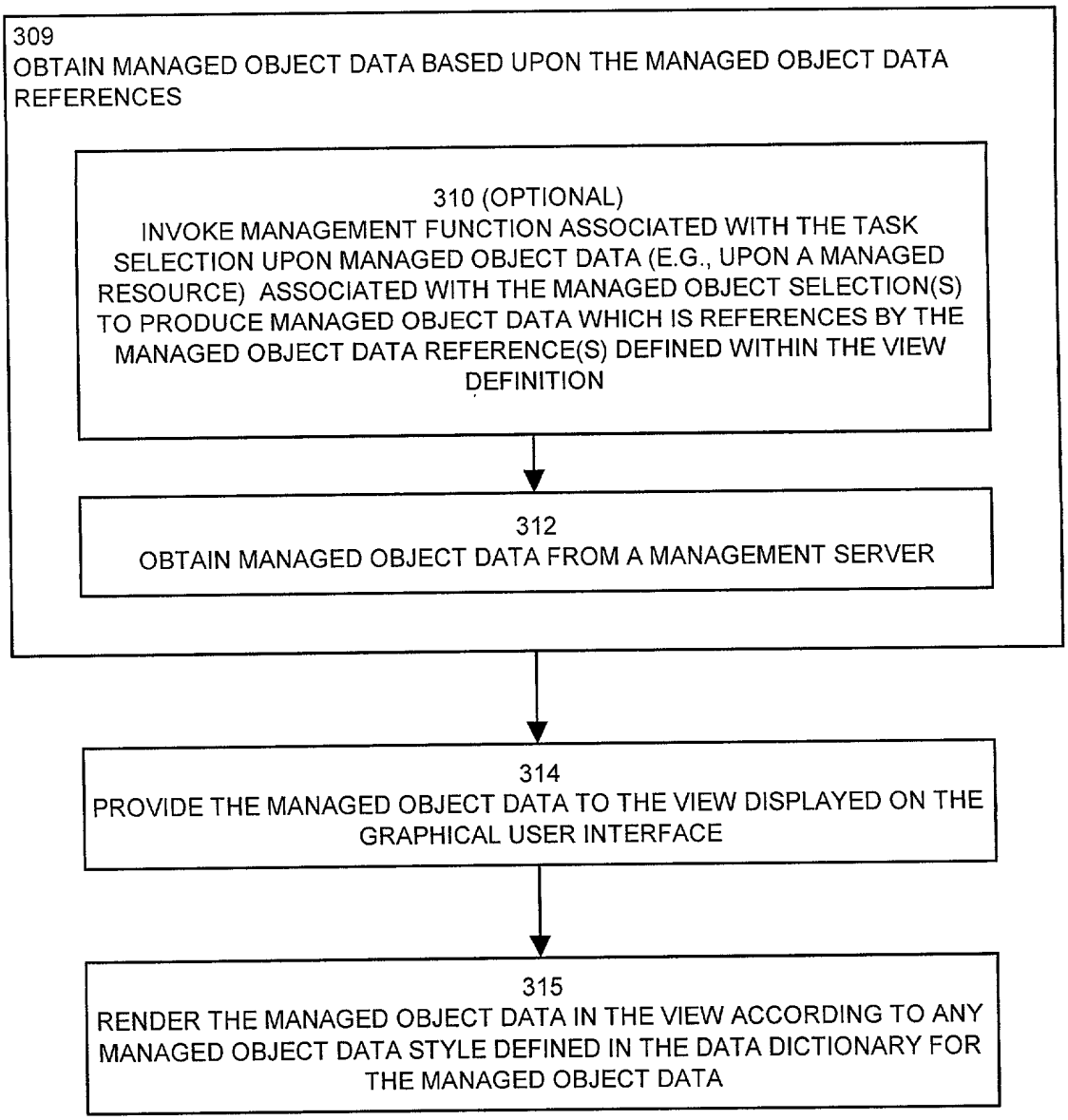
309
OBTAIN MANAGED OBJECT DATA BASED UPON THE MANAGED OBJECT DATA REFERENCES
310 (OPTIONAL)
INVOKE MANAGEMENT FUNCTION ASSOCIATED WITH THE TASK SELECTION UPON MANAGED OBJECT DATA (E.G., UPON A MANAGED RESOURCE) ASSOCIATED WITH THE MANAGED OBJECT SELECTION(S) TO PRODUCE MANAGED OBJECT DATA WHICH IS REFERENCES BY THE MANAGED OBJECT DATA REFERENCE(S) DEFINED WITHIN THE VIEW DEFINITION
312
OBTAIN MANAGED OBJECT DATA FROM A MANAGEMENT SERVER
314
PROVIDE THE MANAGED OBJECT DATA TO THE VIEW DISPLAYED ON THE GRAPHICAL USER INTERFACE
315
RENDER THE MANAGED OBJECT DATA IN THE VIEW ACCORDING TO ANY MANAGED OBJECT DATA STYLE DEFINED IN THE DATA DICTIONARY FOR THE MANAGED OBJECT DATA

FIG. 6